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[Ithaca, N.Y.]

[1916]

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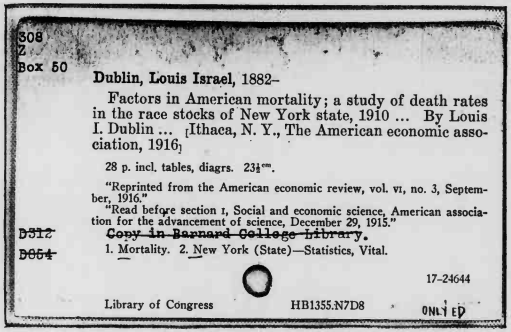

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A STUDY OF DEATH RATES IN THE RACE STOCKS OF NEW YORK STATE, 1910

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FACTORS IN AMERICAN MORTALITY

A STUDY OF DEATH RATES IN THE RACE STOCKS OF NEW YORK STATE, 1910[1]

In an address delivered before this section a year ago, entitled "The Trend of American Vitality," I ventured to point out that the character of our immigration during the last twenty years was a factor in the increasing mortality of the higher age groups. To summarize the argument, it was shown that immigration played a very large part in the growth of population in the states composing the registration area; that the foreign countries from which our immigrants come show uniformly a higher mortality rate than that prevailing in the United States; and that in the state of New York, in 1910, the mortality of the native born was, as a whole, considerably lower than that of the foreign born. This was found to be true for both sexes, and especially at the adult and higher ages. Brief reference was finally made to the rates from the principal causes of death which apparently accounted for these differences. The data then at hand were limited, but were nevertheless sufficient to show that the effect of the mortality of the foreign born on that of the total population was not altogether favorable, and that it was highly desirable to get more evidence on this subject.

In this paper, I propose to carry the analysis further, and to present the added evidence which has been gathered. I shall submit the mortality figures for the state of New York to an examination to show the facts for each of the important race stocks, and shall attempt to evaluate the various racial elements as factors in the general mortality. Consideration will be given to the important items of sex, age, and causes of death. We shall incidentally obtain a picture of the effect of life in America on the various foreign born peoples. We shall also learn, especially from the consideration of the diseases which cause death, where most effort in public health work should in future be directed.

I present for your consideration a table and two graphs giv-

[1] Read before Section I, Social and Economic Science, American Association for the Advancement of Science, December 29, 1915.

ing the mortality rates in the state of New York, for the year 1910, of the following three classes of the white population:

a. The native born of native parentage;

b. The native born of foreign or mixed parentage;

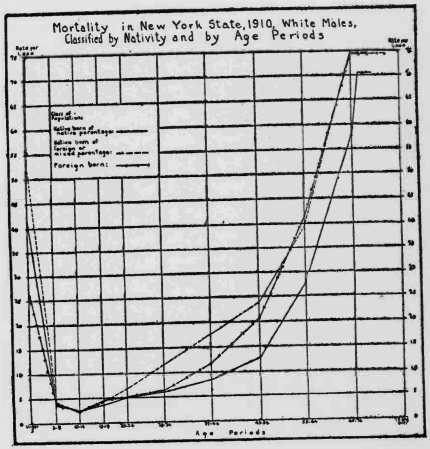
c. The foreign born.

TABLE 1.—*Deaths per 1,000 white population among native born of native parentage, among native born of foreign or mixed parentage, and among foreign born, by sex and by age period: New York state, 1910.*

Age period	MALES			FEMALES		
	Native born of native parentage	Native born of foreign or mixed parentage	Foreign born	Native born of native parentage	Native born of foreign or mixed parentage	Foreign born
All ages:						
Crude rate	15.9	18.7	17.2	13.9	14.7	16.3
Ages 10 and over:						
Crude rate	13.8	13.2	17.5	12.4	9.7	16.6
Standardized rate	13.8	17.2	17.1	12.4	13.9	16.2
Under 10	23.5	31.0	8.4	19.6	27.0	8.2
10-14	2.5	2.2	2.5	2.6	2.1	2.4
15-19	3.6	4.1	4.4	3.2	3.2	3.2
20-24	5.0	6.8	5.2	4.7	5.2	4.0
25-44	6.9	14.3	8.7	5.7	9.3	7.3
45-64	18.8	28.2	28.0	14.3	20.0	23.4
65-84	77.3	89.9	90.4	68.2	73.9	87.7
85 and over	268.9	328.0	272.7	242.3	324.9	270.5

A number of observations must be made with reference to Table 1, before a comparison of the figures for the three nativity groups can safely be made. In the group "under age 10" a very low mortality rate appears for the foreign born males and females. The figures are, however, entirely inadequate as measures of the mortality among the foreign born in this age period. The heaviest mortality in the period "under 10" is in the first year of life, at which age there is virtually no foreign born population. In fact, there is only a very small foreign born representation in the entire period under 5. The death rate "under 10" is practically a rate for the period 3-9 for the foreign born. The extremely low figure for the period "under 10" is thus explained, and its incomparability with the other rates is established. The

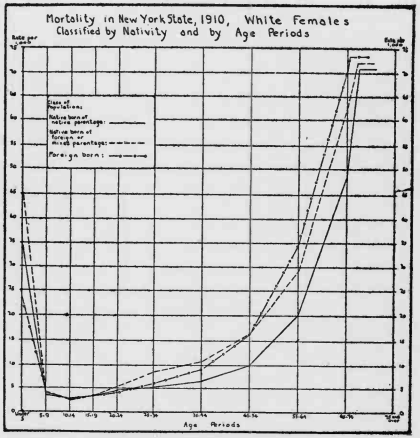
GRAPH I



absence of the foreign born in the earliest ages affects their crude mortality rates for "all ages" very appreciably. At least 3, and perhaps 4, deaths per thousand should be added to the figures given, in order to compensate for this lack of infants among immigrants.

After the first period—that is, beginning with age 10—the figures for the three classes are for all practical purposes comparable. The males in the period "10-14" show virtually the same death rate for the three classes, but beginning with "15-19" and continuing to the end of life the rates for the native born of native parentage are the least. In the age periods "20-24" and "25-44," the principal working period of life, the foreign

GRAPH II


Mortality in New York State, 1910, White Females
Classified by Nativity and by Age Periods
Rate per 1000
Rate per 1000
Class of Population
Native born of native parentage:
Native born of foreign or mixed parentage:
Foreign born:
Age Periods

born have a considerably lower mortality than the native born of foreign or mixed parentage, but in the next two age periods—that is, up to the age period "85 and over"—the two sets of figures are practically identical. Very similar conditions obtain for the females. No comparisons can be made in the first age period. The three sets of rates are the same in the age period "15-19." The foreign born show the least rate in the age period "20-24," but beginning with 25 and continuing throughout the rest of life the native born of native parentage have the most favorable mortality. The foreign born females show the highest mortality in the age period "45 to 84."

We may then summarize Table 1 as follows: The native born of native parentage, virtually without exception, show the lowest

death rates. This condition is very marked in the adult period of life—at ages 25 to 64. The rates of the native born of foreign or mixed parentage and those of the foreign born—that is, of the children of immigrants and of the immigrants themselves—do not lend themselves readily to comparison. The rates for the two groups run side by side for some periods and diverge for others, following no obvious law. It is, of course, realized that these two groups of our population are largely incomparable, because of the differences in race composition, especially at the various age periods. Thus the native born of foreign or mixed parentage after middle life represent the children of an older immigration, which occurred prior to 1885, and which was largely Irish and German in composition. The foreign born after middle life, on the other hand, are more representative of the newer immigration, occurring since 1885, which is largely Jewish, Italian, and Slavic in composition. It is imperative, therefore, that we examine, in so far as data are available, the mortality rates of the race groups that compose the "foreign born." This will throw light not only on the aggregate rates for the "foreign born"—that is, on columns 3 and 6 in the table—but indirectly on the rates of native born of foreign or mixed parentage.

Fortunately for these purposes I have been able to obtain from the office of the Director of the Census a series of manuscript tables giving the number of persons and number of deaths in the nativity groups composing the foreign born population in the state of New York. It has been possible, as a result, to compute the essential rates for the various age periods and for the two sexes. This will form the principal contribution of this paper.[2]

It is possible to differentiate in the group "foreign born" the following nationalities: Russians, Italians, Germans, Irish, Austro-Hungarians, and English, Scotch, and Welsh. These are arranged in descending order according to their proportionate representation in the population of New York state at the time of the 1910 census. It is understood that the several designations are not always exactly synonymous with the race stocks, since a few include a number of different races. This subject will be con-

[2] My sincere thanks are due both to Mr. Sam. L. Rogers, Director of the Census, and to Mr. Richard C. Lappin, Chief Statistician, Division of Vital Statistics, Bureau of the Census, for their courtesy and substantial assistance in providing the sources of my data.

sidered more fully in the treatment of each nationality. Together, these six nationalities comprised 2,371,090 persons, or 86.9 per cent of all the foreign born, and 26.5 per cent of the total white population of the state of New York in 1910. It is to be regretted that the lack of trustworthy figures makes it impossible to compare each of these foreign nationalities with the native born of the corresponding foreign parentage. Our discussion will, therefore, be limited to a comparison of the death rates by age periods for each of these groups with the native born of native parentage.

Russians

In 1910 there were in New York state 558,952 persons born in Russia. They formed 20.5 per cent of the total foreign born and 6.2 per cent of the total white population. The term "Russian" includes a large proportion of Jews, as well as Poles[8] and true Russians. Of all the Russian immigrants into the United States in the period 1899-1910, 43.8 per cent were Jews, and it is highly probable that an even larger proportion of the Russians in New York state in 1910 were of the Jewish race. This is an important point to keep in mind, because the Jews uniformly

TABLE 2.—*Deaths per 1,000 white population among persons born in Russia, and among native born of native parentage, by sex and by age period; New York state, 1910.*

Age period	MALES		FEMALES	
	Native born of native parentage	Russian born	Native born of native parentage	Russian born
All ages:				
Crude rate	15.9	7.5	13.9	6.6
Ages 10 and over:				
Crude rate	13.8	7.7	12.4	6.8
Standardized rate	13.8	13.1	12.4	12.3
Under 10	23.5	4.4	19.6	3.7
10-14	2.5	1.6	2.6	1.4
15-19	3.6	2.6	3.2	1.8
20-24	5.0	3.8	4.7	2.9
25-44	6.9	5.1	5.7	5.3
45-64	18.8	20.1	14.3	16.0
65-84	77.3	78.4	68.2	69.8
85 and over	268.9	255.8	242.3	257.8

[8] Figures for Poles given separately in census returns were apportioned between Russians, Austro-Hungarians, and Germans in this order, ⅗, ⅙, and ⅙, respectively.

show a lower mortality than the races among whom they live. Thus, according to Nowosselsky, the Jews in Russia showed at every age period a death rate half as great as that of the Russians belonging to the Orthodox Church. This is true for both sexes. With the restriction in mind, then, that our figures for Russians are really for a group composed half of Jews, I present Table 2 for 1910 for the state of New York.

Attention must again be directed to the utter incomparability of the two sets of figures for the age period "under 10." Beginning with "10-14" and continuing through the period "25-44," the rates for the Russian born are uniformly and appreciably lower than those for the native born of native parentage. In the age period "45-64," and in the subsequent period, for males, and in all periods for females, the Russians show a slightly higher mortality than the native born of native parentage. For all ages combined, "10 and over," the crude rate for the Russian males is 7.7, as against 13.8 for the native born of native parentage; for the Russian females the crude rate is 6.8, as against 12.4 for those of native parentage. But when standardized for the differences in age distribution, with the distribution of the native born of native parentage as a basis, the rate becomes 13.1 for the Russian males and 12.3 for females. The corresponding figures for the native born of native parentage, 13.8 and 12.4 respectively, are the same as the crude rates given above, because these are taken as our standard. When thus standardized the rates for the Russians covering this long period of life are much the same as for the native born of native parentage. The favorable influence of the Jewish stock is very clearly shown in the low rate of mortality of the Russians in New York state.

General death rates such as we have quoted are after all but a composite of the rates for the various individual causes of death. Light is, therefore, thrown on the above findings by a more detailed examination of the mortality of persons born in Russia to show the part played by certain of the principal diseases and conditions causing death. Unfortunately the rates for specific causes have not yet been computed for the native born of native parentage. As a result, each one of the foreign stocks must be compared with the corresponding figures for the entire group of the native born (Table 3).

Among Russians in New York state there is a much lower death rate from pulmonary tuberculosis than among the native

born (Table 4). In the age period "25-44," for example, they show a tuberculosis death rate for males of 117.1 per 100,000, as against 352.0 among natives. In the same age-class females

TABLE 3.—*Deaths of persons born in the United States and rates per 100,000 for the principal causes of death, by sex and by age period: New York state, 1910.*

Sex and age period	Population	All causes		Tuberculosis of lungs		Cancer		Organic heart diseases		Pneumonia		Bright's disease		Violence excl. suicide	
		Deaths	Rates per 1000	Deaths	Rates per 100000	Deaths	Rates per 100000	Deaths	Rates per 100000	Deaths	Rates per 100000	Deaths	Rates per 100000	Deaths	Rates per 100000
MALES															
All ages	3078904	52502	17.1	5262	170.9	1431	46.5	4284	139.1	6274	203.8	2882	93.6	3054	99.2
Under 10	800080	22127	27.7	187	23.4	27	3.4	182	22.7	3741	467.6	68	8.5	722	90.2
10-14	341629	797	2.3	35	10.2	6	1.8	92	26.9	61	17.9	22	6.4	148	43.3
15-19	319317	1215	3.8	324	101.5	10	3.1	109	34.1	106	33.2	18	5.6	201	62.9
20-24	276508	1592	5.8	598	216.3	17	6.1	74	26.8	116	42.0	42	15.2	268	96.9
25-44	813583	8195	10.1	2864	352.0	151	18.6	529	65.0	749	92.1	526	64.7	895	110.0
45-64	412000	9102	22.1	1080	262.1	618	150.0	1303	316.3	781	189.6	1101	267.2	531	128.9
65-84	105332	8293	78.7	170	161.4	562	533.6	1794	1703.7	640	607.6	1003	952.2	246	233.5
85 and over	4330	1174	271.1	3	69.3	39	900.7	211	4873.0	79	1824.5	102	2355.7	42	970.0
Unknown	6225	7	1.1	1	16.1	1	16.1	. . .	. . .	1	16.1	. . .	. . .	1	16.1
FEMALES															
All ages	3158669	45034	14.3	3461	109.6	2557	81.0	3894	123.3	5310	168.1	2466	78.1	1111	34.9
Under 10	787961	18674	23.7	162	20.6	17	2.2	165	20.9	3125	396.6	58	7.4	434	55.1
10-14	339340	790	2.3	92	27.1	9	2.7	101	29.8	69	20.3	25	7.4	36	10.6
15-19	329988	1060	3.2	368	111.5	13	3.9	84	25.5	74	22.4	29	8.8	38	11.5
20-24	298995	1472	4.9	557	186.3	12	4.0	87	29.1	65	21.7	46	15.4	45	15.1
25-44	850657	6268	7.4	1644	193.3	433	50.9	526	61.8	461	54.2	504	59.2	123	14.5
45-64	423792	7017	16.6	471	111.1	1218	287.4	1047	247.1	552	130.3	884	208.6	122	28.8
65-84	119695	8225	68.7	165	137.9	800	668.4	1639	1369.3	818	683.4	815	680.9	232	193.8
85 and over	6137	1523	248.2	2	32.6	55	896.2	245	3992.2	145	2362.7	104	1694.6	81	1319.9
Unknown	2164	6	2.8	. . .	. . .	. . .	. . .	. . .	. . .	1	46.4	1	46.4	. . .	. . .

TABLE 4.—*Deaths of persons born in Russia and rates per 100,000 for the principal causes of death, by sex and by age period: New York state, 1910.*

Sex and age period	Population	All causes		Tuberculosis of lungs		Cancer		Organic heart diseases		Pneumonia		Bright's disease		Violence excl. suicide	
		Deaths	Rates per 1000	Deaths	Rates per 100000	Deaths	Rates per 100000	Deaths	Rates per 100000	Deaths	Rates per 100000	Deaths	Rates per 100000	Deaths	Rates per 100000
MALES															
All ages	304293	2278	7.5	349	114.7	210	69.0	240	78.9	247	81.2	199	65.4	209	68.7
Under 10	17045	75	4.4	4	23.5	. . .	. . .	1	5.9	12	70.4	1	5.9	12	70.4
10-14	17128	27	1.6	2	11.7	. . .	. . .	5	29.2	3	17.5	2	11.7	6	35.0
15-19	26432	70	2.6	16	60.5	. . .	. . .	8	30.3	3	11.3	1	3.8	8	30.3
20-24	51858	196	3.8	50	96.4	7	13.5	6	11.6	19	36.6	3	5.8	44	84.8
25-44	148567	766	5.1	174	117.1	51	34.3	60	40.4	76	51.2	36	24.2	97	65.3
45-64	38558	775	20.1	95	246.4	107	277.5	98	254.2	88	228.2	92	238.6	31	80.4
65-84	4386	344	78.4	8	182.4	45	1026.0	55	1254.0	44	1003.2	58	1322.4	9	205.2
85 and over	129	33	255.8	. . .	. . .	. . .	. . .	7	5426.4	2	1550.4	6	4651.2	3	2325.6
Unknown	190	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	526.3	. . .	. . .	. . .	. . .
FEMALES															
All ages	254659	1675	6.6	190	74.6	177	69.5	217	85.2	153	60.1	184	72.3	62	24.3
Under 10	16812	63	3.7	. . .	. . .	. . .	. . .	2	11.9	14	83.3	. . .	. . .	6	35.7
10-14	17448	24	1.4	1	5.7	. . .	. . .	7	40.1	4	22.9	. . .	. . .	2	11.5
15-19	32186	57	1.8	9	28.0	1	3.1	3	9.3	5	15.5	. . .	. . .	5	15.5
20-24	48474	142	2.9	43	88.7	1	2.1	15	30.9	7	14.4	6	12.4	6	12.4
25-44	103107	547	5.3	108	104.7	57	55.3	45	43.6	34	33.0	32	31.0	19	18.4
45-64	32160	513	16.0	26	80.8	92	286.1	77	239.4	51	158.6	89	276.7	14	43.5
65-84	4240	296	69.8	4	94.3	26	613.2	63	1485.8	34	801.9	54	1273.6	8	188.7
85 and over	128	33	257.8	. . .	. . .	. . .	. . .	6	4687.5	5	3906.3	3	2343.8	2	1562.5
Unknown	104	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

show a tuberculosis death rate of 104.7 per 100,000, as against 193.3. These differences in the death rates from tuberculosis are alone sufficient to explain the advantageous mortality which we have observed for the Russians. The direct relationship between the low tuberculosis mortality and the large representation of Jews among the Russian born is unmistakable, and this conclusion accords with the work of a number of other writers. Körösy determined, for the city of Budapest, a tuberculosis mortality among Jews of 184 per 100,000, whereas the rate was 470 for Catholics and 331 for Calvinists. In both sexes and at all ages up to the end of the age period "25-44," pneumonia is markedly lower among the Russians in New York state; thus, at ages "25-44" the pneumonia mortality among Russian born males was 51.2, while the corresponding figure for native Americans was 92.1. This is again in agreement with Körösy, who reports the favorable position of the Jews as to pneumonia. Bright's disease, however, is higher among Russians in the later age periods, which are the more significant ones for this disease. The cancer rate is higher among Russian males in the period between 25 and 85; at ages "25-44" they have a death rate of 34.3 per 100,000 while that for natives from this cause is only 18.6. In the age period "45 to 64," the cancer rate is 277.5 for the Russians against 150.0 for the native born. The death rate of Russian females in the age class "25-44" is 55.3, while that of Americans is only 50.9; thereafter their rates are slightly lower, but the actual number of deaths, particularly those after age 65, are scarcely large enough to warrant any general conclusion. The low death rate from violent causes points to the fact that the Russian population does not commonly engage in those occupations in which this danger threatens: thus at ages "25-44" there were 65.3 deaths per 100,000 Russian males as opposed to 110.0 per 100,000 natives from these causes.

Italians

The Italians are more homogeneous than the Russians, although there is a larger representation of southern Italians and Sicilians among the Italians in New York state than is the case in Italy. According to the 1910 census, the number of persons of Italian birth in New York state was 472,192. This was 17.3 per cent of the foreign born whites and 5.3 per cent of the total white population in the state. This number is large, in view of the recent date at

which the Italian immigration began. Thus in the year 1890 the number of foreign born Italians in New York state was only 64,141. The tide of Italian immigration in this country rose subsequently to this date.

The mortality of Italians in their native land is a favorable one. In certain age periods, such as 35 to 64, the rates in 1900 and 1901 (the last figures available) were even lower than those for England and Wales (although, taken as a whole, the mortality of Italians is higher than that of the English). The figures which we have for Italians in their native country justify the conclusion that mortality conditions of persons of Italian birth are on the whole better in New York state than in Italy. The following table (Table 5) presents the mortality rates for this nationality, contrasted with those of the native born of native parentage, in New York.

Apart from the first age period, the figures for which are, as shown above, incomplete, the rates for the Italian males are higher than those for native males through the period "20-24." At the ages "25-44" and "45-64" the two sets of figures are very nearly the same; thereafter—that is, from 65 upward—the Italian males show a lower mortality, but the number of persons at those higher ages is too small to justify drawing any conclusions.

The Italian females in New York state show, on the whole, a

TABLE 5.—*Deaths per 1,000 white population among persons born in Italy, and among native born of native parentage, by sex and by age period; New York state, 1910.*

Age period	MALES		FEMALES	
	Native born of native parentage	Italian born	Native born of native parentage	Italian born
All ages:				
Crude rate	15.9	9.2	13.9	9.7
Ages 10 and over:				
Crude rate	13.8	9.0	12.4	9.5
Standardized rate	13.8	12.9	12.4	13.7
Under 10	23.5	13.1	19.6	12.7
10-14	2.5	2.7	2.6	3.4
15-19	3.6	5.5	3.2	5.7
20-24	5.0	6.2	4.7	6.1
25-44	6.9	6.6	5.7	7.0
45-64	18.8	19.3	14.3	17.9
65-84	77.3	64.6	68.2	63.5
85 and over	268.9	120.3	242.3	214.3

higher mortality than the males. This is a remarkable condition, in view of the fact that the reverse relation of the sexes usually obtains. The Italian females also show a higher mortality than the native born females of native parentage; this is true in every age period through "45-64." After age 65 the Italian females are somewhat lower than the native females of native parentage, but here again the number of cases is too small to merit consideration.

Eliminating the first age period, and considering the rest of life as a whole, the crude rates for Italian males and females are 9.0 and 9.5 respectively. Standardized on the basis of the age distribution of the native born of native parentage, these rates are increased to 12.9 and 13.7. They are to be contrasted with the rates 13.8 and 12.4, respectively, for the native born of native parentage. We may say, then, that the Italians present favorable mortality rates. This is especially true of the males.

When we consider the causes (Table 6) which go to make up this mortality we find pneumonia, all forms, especially prominent. In practically every age period the pneumonia death rate for Italians is about twice that of native Americans; sometimes the proportion is even greater. The differences are especially marked among women. Thus at ages "25-44" Italian females have a rate of 81.5 per 100,000; the corresponding figure for native Americans is only 54.2. This suggests what has, indeed, been pointed out by Guilfoy, Stella, and other observers—a high prevalence of the acute infections which, especially at the older ages, terminate in the pneumonias and are reported under the last designation. In pulmonary tuberculosis, Italian males are at a decided advantage between ages 20 and 64—a period which includes the years most significant for this disease. Among the women, on the other hand, conditions are quite different. Almost in every period of life, and particularly at the early ages, they are at a marked disadvantage. At ages "20-24," for example, there is a mortality from pulmonary tuberculosis of 247.7 among Italian women, as opposed to 186.3 among native American women. When we contrast these figures with those of the men, who, at ages "20-24," show a rate of only 140.4 (while that of Americans is 216.3), it becomes clear that the unfavorable general mortality of Italian women is due primarily to pulmonary tuberculosis. In respect to organic diseases of the heart, the men show a uniformly low rate. This record is again in marked contrast

with that of the women, who, upon comparison with native Americans, are at a considerable disadvantage in every age group except the last. Accidents are strikingly frequent among Italians, in both sexes, and in practically every age group. The

TABLE 6.—*Deaths of persons born in Italy and rates per 100,000 for the principal causes of death, by sex and by age period: New York state, 1910.*

Sex and age period	Population	All causes		Tuberculosis of the lungs		Organic heart disease		Pneumonia		Bright's disease		Violence (excl. suicide)	
		Deaths	Rates per 1000	Deaths	Rate per 100000	Deaths	Rates per 100000	Deaths	Rates per 100000	Deaths	Rates per 100000	Deaths	Rates per 100000
MALES													
All ages	285495	2621	9.2	320	112.1	227	79.5	438	153.4	155	54.3	452	158.4
Under 10	12072	158	13.1	1	8.3	. .	. . .	44	364.5	. .	. . .	21	174.0
10–14	18211	36	2.7	2	15.1	3	22.7	5	37.8	1	7.6	11	83.8
15–19	23274	189	6.5	27	106.8	4	15.8	18	71.2	6	13.0	41	162.2
20–24	30803	382	9.7	45	140.4	6	10.8	41	88.5	11	23.4	29	170.6
25–44	143160	945	6.6	146	102.0	59	41.2	121	85.5	40	28.4	229	160.0
45–64	41066	792	19.3	71	172.9	108	260.8	162	394.5	71	172.9	69	168.0
65–84	3837	248	64.6	8	208.5	50	1303.1	46	1198.9	31	807.9	6	156.4
85 and over	138	16	120.3	. .	. . .	3	2255.6	. .	. . .	1	761.9	2	1503.8
Unknown	879	. .	. . .	. .	. . .	. .	. . .	. .	. . .	. .	. . .	. .	. . .
FEMALES													
All ages	186757	1618	9.7	299	160.1	262	184.9	272	145.6	122	65.3	60	32.1
Under 10	11758	149	12.7	4	34.0	1	8.5	46	391.4	. .	. . .	18	153.2
10–14	12347	42	3.4	11	89.1	6	48.6	4	32.4	. .	. . .	3	24.3
15–19	19947	114	5.7	44	220.6	6	30.1	10	50.1	2	10.0	5	25.1
20–24	20403	179	8.8	51	247.7	15	60.9	17	67.7	2	8.1	6	20.4
25–44	89040	567	7.1	129	186.3	58	65.8	72	81.5	32	36.8	13	16.1
45–64	28375	508	17.9	35	123.8	108	373.6	72	253.7	62	211.5	13	45.6
65–84	3638	232	63.8	2	55.4	60	1649.8	62	1439.4	20	549.8	2	55.0
85 and over	126	27	214.3	1	793.7	5	3968.8	5	3968.8	6	4761.9	. .	. . .
Unknown	108	. .	. . .	. .	. . .	. .	. . .	. .	. . .	. .	. . .	. .	. . .

rates are particularly high among males. Thus at ages "20-24" there was a death rate from these causes of 170.6 per 100,000, while the corresponding figure for natives was only 96.9.

Germans

Foreign born Germans do not now constitute as large a part of the foreign born population of New York state as they did in the decade beginning 1880, when the high water mark of German immigration was reached. The Germans, however, still form one of the most numerous groups of the foreign born in New York state. This is especially true at the higher ages of life. In 1910 they were represented by 436,874 persons, constituting 16.0 per cent of the foreign born whites and 4.9 per cent of the total white population.

The mortality rates of Germans in their native country have been among the more favorable ones in Europe. In the last two decades the rates for the German Empire have shown very satisfactory improvement. It is, therefore, very surprising to find that in New York state the mortality of persons of German birth is fairly high, as is shown in the following table:

TABLE 7.—*Deaths per 1,000 white population among persons born in Germany, and among native born of native parentage, by sex and by age period: New York state, 1910.*

Age period	MALES		FEMALES	
	Native born of native parentage	German born	Native born of native parentage	German born
All ages:				
Crude rate	15.9	27.5	13.9	22.6
Ages 10 and over:				
Crude rate	13.8	27.7	12.4	22.8
Standardized rate	13.8	17.9	12.4	14.4
Under 10	23.5	12.7	19.6	10.3
10-14	2.5	5.8	2.6	1.6
15-19	3.6	3.4	3.2	2.7
20-24	5.0	4.5	4.7	4.0
25-44	6.9	10.0	5.7	6.3
45-64	18.8	27.7	14.3	18.4
65-84	77.3	90.4	68.2	83.1
85 and over	268.9	263.4	242.3	246.4

We must at the outset remark that the rates for the Germans in the first three age periods, as presented, have no particular merit, because of the small number of persons exposed. After

TABLE 8.—*Deaths of persons born in Germany and rates per 100,000 for the principal causes of death, by sex and by age period: New York state, 1910.*

Sex and age period	Population	All causes		Tuberculosis of lungs		Cancer		Organic heart diseases		Pneumonia		Bright's disease		Suicides	
		Deaths	Rates per 1000	Deaths	Rates per 100000	Deaths	Rates per 100000	Deaths	Rates per 100000	Deaths	Rates per 100000	Deaths	Rates per 100000	Deaths	Rates per 100000
MALES															
All ages	226161	6196	27.5	602	267.4	500	222.1	944	419.3	674	264.9	764	334.9	207	91.9
Under 10	1891	24	12.7	.	.	.	.	.	.	8	423.1	.	.	.	.
10-14	1894	11	5.8	1	52.8	.	.	3	158.4	.	.	1	52.8	.	.
15-19	4403	15	3.4	4	90.8	.	.	.	.	.	.	1	22.7	.	.
20-24	10898	49	4.5	5	45.9	.	.	.	.	5	45.9	1	9.2	4	36.7
25-44	93147	910	10.0	221	237.2	97	104.1	69	74.4	86	94.0	62	67.8	49	52.6
45-64	85183	2359	27.7	208	350.0	248	291.8	280	329.9	229	269.0	253	297.4	112	131.6
65-84	28992	2568	90.4	60	211.3	208	732.6	541	1905.5	229	805.6	371	1305.7	33	116.4
85 and over	949	250	263.4	2	210.7	7	737.6	51	5374.1	18	1896.7	84	8682.7	8	816.1
Unknown	127	1	.	.	.	.	.	.	.	.	.	1	787.4	.	.
FEMALES															
All ages	211713	4792	22.6	244	115.3	560	264.5	840	396.8	434	205.0	581	274.4	47	22.2
Under 10	1936	20	10.3	1	51.7	.	.	1	53.6	3	155.0	.	.	.	.
10-14	1864	3	1.6	.	.	.	.	.	.	.	.	.	.	.	.
15-19	6203	14	2.7	4	76.9	1	19.2	1	19.2	2	38.4	1	19.2	1	19.2
20-24	12640	60	4.0	20	158.2	.	.	2	16.8	2	16.8	1	7.9	4	31.6
25-44	84966	539	6.3	106	155.1	69	81.4	84	40.1	98	44.8	87	43.6	11	13.0
45-64	73829	1861	18.4	103	167.7	240	833.2	211	298.5	101	143.8	187	265.2	20	27.1
65-84	30116	2502	83.1	32	106.3	233	773.7	532	1766.5	253	840.1	333	1122.2	10	33.2
85 and over	1246	307	246.4	1	80.3	11	882.8	57	4574.6	34	2728.7	22	1765.7	1	80.3
Unknown	116	.	.	.	.	.	.	.	.	.	.	.	.	.	.

the age period "20-24" the figures are very ample, and may be considered entirely reliable. Beginning, then, with ages "25-44," we find that the rate for German males is very much higher than for the native born of native parentage, and this condition continues until the conclusion of the age period "65-84." The last age period, "85 and over," shows a slightly better rate than that for the native born of native parentage. In like manner, the females, beginning with the period "25-44," show higher rates than the native born of native parentage at every age period to the end of life. Considering together ages 10 and over, the crude rate is 27.7 for males and 22.8 for females; but when standardized as above outlined, the rates for the two sexes are reduced to 17.9 and 14.4, respectively. These are both distinctly higher than the rates for the native born of native parentage, the excess being more marked for males than for females.

In seeking to determine the causes for this high mortality (Table 8) we find that the pulmonary affections are to a large degree responsible; the degenerative diseases also play an important part. In view of the limitations of the material which have already been pointed out, and in view of the fact that most of the diseases in question have no considerable incidence before the attainment of maturity, we have concerned ourselves for the most part only with ages 25 and over. At almost every age, the pulmonary tuberculosis rates of German males are greatly in excess of those of native Americans; for example, at ages "45-64" there is mortality of 350.0 per 100,000 among Germans from this cause, while the rate is only 262.1 among natives. The position of the women with regard to pulmonary tuberculosis is favorable throughout practically the whole of life. In virtually every age class pneumonia has a higher death rate among German males than among the native born; the same is true for females. Sometimes the differences are very marked, particularly in the case of men; thus at ages "45-64" males of German birth have a pneumonia rate of 269.0 per 100,000, while the corresponding rate for native Americans is only 189.6. German males have a higher mortality from heart disease from age 25 upwards; the same is, in general, true of women, although they have a slight advantage over natives at ages "25-44." In the age period "45-64" German males have a death rate of 328.9 from heart disease, whereas that of the native born is only 316.3; the corresponding figures for the female sex are 288.5 for Germans and

247.1 for Americans. With respect to Bright's disease, German males are consistently at a disadvantage throughout all the significant age groups; the same is true of females beginning at age 45. Thus at ages "45-64" the mortality of German males from this cause is 332.4 per 100,000; the corresponding mortality for native Americans is 267.2. In the next age class the mortality of Germans is 1306.7, while that of natives is only 952.2. Cancer is more frequent at ages "25-84" among German men, and at ages 25-64 among German women. The differences are strikingly large among males; at ages "45-64," for example, the mortality of German men is 291.3 per 100,000, while that of natives is only 150.0. Suicide is also important; at ages 45-64 it accounts for 131.6 deaths per 100,000 German males, but for only 98.0 among natives. A high suicide rate among persons born in Germany has been pointed out by a number of observers.

Irish

Irish immigration into the United States attained its highest point as far back as 1851, but it has not ceased to be an important factor in our immigration since that date. In 1910 there were 367,877 persons of Irish birth in the state of New York; they formed 13.5 per cent of the total foreign born and 4.1 per cent of the total white population of the state.

In their own country the mortality rates of the Irish are higher than those of the English, especially for females, but they compare favorably, nevertheless, with those of other races of western Europe. In New York state, however, a surprisingly high mortality for the Irish appears to exist. This is shown in Table 9.

We may again eliminate from serious consideration all age periods below ages "20-24," because of the absence of Irish immigrants at the younger ages. Beginning with the period of "20-24," the males show a mortality almost twice that of the native born of native parentage. The rate is nearly three times as great in the next age period, "25-44," and continues to be in considerable excess throughout the rest of life, although the difference is not so marked in the period after 85. Females in the first period, "20-24," show no untoward condition. Beginning with "25-44," the rate is more than double that of the native

TABLE 9.—*Deaths per 1,000 white population among persons born in Ireland and among native born of native parentage, by sex and by age period: New York state, 1910.*

Age period	MALES		FEMALES	
	Native born of native parentage	Irish born	Native born of native parentage	Irish born
All ages:				
Crude rate	15.9	40.2	13.9	34.8
Ages 10 and over:				
Crude rate	13.8	40.3	12.4	34.9
Standardized rate	13.8	25.9	12.4	23.5
Under 10	23.5	16.8	19.6	10.4
10-14	2.5	...	2.6	5.1
15-19	3.6	8.1	3.2	3.9
20-24	5.0	9.4	4.7	4.1
25-44	6.9	18.5	5.7	13.0
45-64	18.8	46.3	14.3	40.7
65-84	77.3	101.6	68.2	107.4
85 and over	268.9	286.1	242.3	307.6

born of native parentage, and this very unfavorable mortality is maintained throughout the remaining age periods of life. Ages 10 and over, taken together, present a crude rate of 40.3 for the males and 34.9 for the females. These, when standardized for age periods, are reduced to 25.9 and 23.5 for the respective sexes. The rates are close to twice as high as those of the native born of native parentage. We may infer from the above figures that both male and female Irish born persons living in New York state show mortality rates which are much in excess of the corresponding figures for their own country; indeed, their mortality is not far from twice that recorded by the Registrar General of Ireland for similar age periods.

An examination of the causes for these very unfavorable conditions (Table 10) shows, in exaggerated form, a situation not unlike that determined for the German born population of the state. Tuberculosis and pneumonia, as also the degenerative diseases, play a prominent part. With regard to tuberculosis, the Irish born population of both sexes are at almost every age under a disadvantage even greater than that of the Germans. At ages "25-44," for example, there is a mortality from this cause of 662.9 among Irish born males, and of only 352.0 among natives; in the female sex the corresponding figures are 353.4 and 193.3. In both sexes and at all ages, pneumonia has a higher death rate

among the Irish born. The differences are again very large. At ages "25-44," for example, there is a rate of 211.2 per 100,000 among Irish born, but of only 92.1 per 100,000 among native Americans. Irish females in the same age class have a mortality of 110.0, while natives have a rate of only 54.2. Heart disease is strikingly high throughout all the significant age periods in both sexes. Thus at ages "45-64," where the mortality of native females is 247.1 per 100,000, that of the Irish born is more than twice as high—656.4. In practically every age period, and among both males and females, the same situation obtains with respect to Bright's disease and apoplexy and paralysis. In all ages up to age 84 Irish born males succumb to accidents in large numbers; at ages "25-44," for example, the death rate for this cause among males—263.7—was over twice as high as that of native Americans—103.0.

The above figures for both the German and the Irish strains in New York state help to explain some of the surprising conditions which we found in our discussion of the general death rates in Table 1. Thus, it will be remembered that, at ages "25-44," the native born males of foreign or mixed parentage—that is, first generation Americans—showed a death rate of 14.3 per thousand, while the mortality of the native born males of native parentage was only 6.9, and that of the foreign born males was only 8.7. The German and Irish are the predominating races included in the native born of foreign or mixed parentage in this age period, and it is doubtless their influence that accounts for this high mortality. The foreign born of the same age period, on the other hand, now largely composed of Russian Jews and Italians, present, as we have seen, much more favorable conditions.

Austro-Hungarians

Austro-Hungarian immigration into New York state is comparatively recent, having become appreciable only since 1890. Recently, the number of those coming from this country has increased by leaps and bounds, and in the last few years they have represented one of the most numerous components of our immigration. In 1910 there were 341,846 Austro-Hungarians, who constituted 12.5 per cent of the foreign born whites and 3.8 per cent of the total white population.

TABLE 10.—*Deaths of persons born in Ireland and rates per 100,000 for the principal causes of death, by sex and by age period, New York state, 1910.*

Sex and age period	Population	All causes		Tuberculosis of lungs		Organic heart diseases		Pneumonia		Bright's disease		Violence excl. suicide	
		Deaths	Rates per 1000	Deaths	Rates per 100,000	Deaths	Rates per 100,000	Deaths	Rates per 100,000	Deaths	Rates per 100,000	Deaths	Rates per 100,000
MALES													
All ages	155276	6241	40.2	915	589.3	871	560.9	701	451.5	732	471.4	475	306.9
Under 10	714	12	16.8	. .	. . .	1	140.1	1	140.1	. .	. . .	1	140.1
10-14	598	.	.	. 5	836.3	. .	. . .	. .	. . .	. .	. . .	. .	. .
15-19	1901	13	8.1	11	578.6	. 2	105.2	. .	. . .	. .	. . .	. 2	105.2
20-24	9471	89	9.4	81	855.3	. 2	21.1	. 5	52.8	. 4	42.2	24	253.4
25-44	68641	1270	18.5	455	662.9	62	90.3	145	211.2	83	120.9	191	278.2
45-64	51019	2952	49.3	348	682.1	296	580.2	307	601.7	398	662.5	164	321.4
65-84	22510	1659	73.7	73	324.3	463	2056.5	227	1034.0	288	1299.1	90	406.0
85 and over	889	240	281.4	73	851.6	47	5601.9	16	1907.0	18	2145.4	3	357.6
Unknown	194	2	10.3	. .	. . .	. .	. . .	. .	. . .	1	. . .	.	. .
FEMALES													
All ages	213901	7398	34.8	587	276.1	1276	600.2	875	411.6	963	453.0	208	95.5
Under 10	772	8	10.4	. .	. . .	1	129.5	1	129.5	. .	. . .	1	129.5
10-14	794	2	2.5	. 1	138.1	. .	. . .	1	138.1	. .	. . .	. .	. .
15-19	4311	17	3.9	8	185.6	. 3	69.6	. .	. . .	. 2	46.4	. 1	23.2
20-24	17884	74	4.1	30	167.7	. 4	22.4	. 2	11.2	. 2	11.2	. 2	11.2
25-44	93074	1121	12.0	331	355.4	94	100.3	108	110.0	110	117.4	29	31.0
45-64	69984	2906	40.7	160	228.1	420	656.4	335	523.6	407	636.1	67	104.7
65-84	26070	2181	107.4	67	192.1	686	2812.1	295	1331.3	412	1388.6	91	306.7
85 and over	1242	382	307.6	. .	. . .	72	5797.1	86	2898.6	82	2676.5	12	966.2
Unknown	830	. .	. . .	. .	. . .	. .	. . .	. .	. . .	. .	. . .	. .	. .

As was observed for the Russians, this nationality is likewise heterogeneous, containing large proportions of Jews, Germans, and Slavs. According to the report of the Immigration Commission, 7.8 per cent of those entering the United States from Austria-Hungary are Jews. This percentage is much too low when considered with reference to New York state, where the proportion of Jews from Austria is notably high. We must consider this fact in order to appreciate the mortality conditions which will be shown below.

In Austria-Hungary the mortality rates are relatively high at all age periods, the figures being somewhere between those of Russia on the one hand and those of Germany on the other. The mortality of Austro-Hungarians is apparently much better in America, as is shown by the following figures:

TABLE 11.—*Deaths per 1,000 white population among persons born in Austria-Hungary and among native born of native parentage, by sex and by age period: New York state, 1910.*

Age period	MALES		FEMALES	
	Native born of native parentage	Austro-Hungarian born	Native born of native parentage	Austro-Hungarian born
All ages:				
Crude rate	15.9	9.3	13.9	7.4
Ages 10 and over:				
Crude rate	13.8	9.4	12.4	7.3
Standardized rate	13.8	14.3	12.4	12.4
Under 10	23.5	7.4	19.6	8.2
10-14	2.5	2.8	2.6	1.6
15-19	3.6	4.1	3.2	2.0
20-24	5.0	4.3	4.7	3.5
25-44	6.9	6.7	5.7	5.8
45-64	18.8	21.0	14.3	18.2
65-84	77.3	77.5	68.2	63.9
85 and over	268.9	301.6	242.3	213.5

The first two age periods, "under 10" and "10-14," must be disregarded because of the paucity of data. Beginning with the period "15-19," and continuing throughout the rest of life, the rates for the Austrian males fluctuate slightly above and below the rates for the native males of native parentage. The Austrian females in the two periods "15-19" and "20-24" show more favorable rates than the natives of native parentage. In the next age period, "25-44," the two sets of figures are virtually identical.

TABLE 13.—*Deaths of persons born in Austria-Hungary and rates per 100,000 for the principal causes of death, by sex and by age period: New York state, 1910.*

Sex and age period	Population	All causes		Tuberculosis of lungs		Cancer		Organic heart diseases		Pneumonia		Bright's disease		Violence excl. suicide	
		Deaths	Rates per 1000	Deaths	Rates per 100,000	Deaths	Rates per 100,000	Deaths	Rates per 100,000	Deaths	Rates per 100,000	Deaths	Rates per 100,000	Deaths	Rates per 100,000
MALES															
All ages	177122	1645	9.3	294	166.0	115	64.9	153	86.4	148	80.7	163	92.0	215	121.4
Under 10	5978	44	7.4	1	16.7	1	16.7	2	33.5	10	167.3	1	16.7	6	100.4
10-14	7073	20	2.8	1	14.1	.	.	1	14.1	1	14.1	.	.	8	113.1
15-19	13670	56	4.1	14	102.4	1	7.3	4	29.3	6	43.9	2	14.6	14	102.4
20-24	27912	121	4.3	26	93.1	4	14.3	5	17.9	9	32.2	1	3.6	39	139.7
25-44	93698	626	6.7	166	177.2	19	20.3	46	49.1	41	43.8	23	24.5	112	119.5
45-64	29784	641	21.5	78	261.9	67	224.9	65	218.2	46	154.4	68	228.3	28	94.0
65 and over	2854	211	74.0	7	245.3	27	946.6	30	1052.3	16	560.6	47	1646.9	8	280.3
Unknown	63	19	301.6	. .	. . .	1	1587.3	3	4761.9	2	3174.6	3	4761.9	. .	. . .
	118	. .	. . .	. .	. . .	. .	. . .	. .	. . .	. .	. . .	. .	. . .	. .	. . .
FEMALES															
All ages	164714	1218	7.4	169	102.6	138	83.8	127	77.1	113	68.6	111	67.4	38	23.1
Under 10	6012	49	8.2	. .	. . .	. .	. . .	1	16.6	12	199.6	. .	. . .	2	33.3
10-14	7295	12	1.6	1	13.7	. .	. . .	3	41.1	1	13.7	. .	. . .	. .	. . .
15-19	22191	42	2.0	11	49.6	1	4.5	1	4.5	4	18.0	1	4.5	4	18.0
20-24	32861	117	3.5	29	87.9	1	3.0	10	30.3	8	24.3	4	12.1	3	9.1
25-44	72096	422	5.8	100	137.2	34	46.6	32	43.9	32	43.9	27	37.0	13	17.8
45-64	20934	370	18.2	25	122.9	80	393.4	45	221.3	35	172.1	49	241.0	10	49.2
65 and over	2815	194	68.9	4	142.1	21	746.0	32	1136.8	18	639.4	24	852.9	4	177.6
	89	19	213.5	. .	. . .	1	1123.6	3	3370.8	2	2247.2	5	5618.0	. .	. . .
Unknown	91	. .	. .	. .	. . .	. .	. . .	. .	. . .	. .	. . .	. .	. . .	. .	. . .

In the period "45-64" the Austrian females show higher rates, while at ages "65-84" the relationship is reversed. The figures for the last age period may be disregarded because of insufficient numbers.

On examining the causes of death of this nationality (Table 12), we find a surprisingly large number of deaths from violence (excluding suicide). This may be attributed to the unskilled and perilous occupations in which immigrants from Austria-Hungary engage to a very large degree. The disadvantage of these people, as opposed to native Americans, is apparent in almost every age class and in both sexes; it is particularly striking and consistent among males. Thus at ages "20-24" the mortality from these causes was 139.7 among Austro-Hungarians and only 96.9 among natives. The deaths from these causes formed 32.2 per cent of all deaths of Austro-Hungarian males at ages "20-24" and only 16.8 per cent of the total deaths among the native born in New York state. In the later years the rates for cancer and Bright's disease are also higher in both sexes. For example, among males aged "45-64" there was a cancer mortality of 259.8 per 100,000 among Austro-Hungarians, in contrast with only 150.0 among native Americans.

English, Scotch, and Welsh

Immigration from England, Scotland, and Wales into the state of New York has been of secondary importance in comparison with the great wave of immigration from eastern and southern Europe. In 1910 there were only 193,359 of these stocks in New York state, constituting 7.1 per cent of the foreign born and 2.2 per cent of the total white population of the state. So light has been the immigration from these countries in recent years that the total number under age 25 is too small to give reliable death rates.

The mortality rates of England, Scotland, and Wales are among the most favorable in Europe. Moreover, the fullness of the official returns from these countries makes comparisons readily possible with the corresponding figures found in New York state, which are presented herewith (Table 13).

For reasons indicated above we shall not consider the death rates in the first four age periods in this table. In the age period "25-44" there is a considerably higher mortality for the British males than for the native born of native parentage. This

TABLE 13.—*Deaths per 1,000 white population among persons born in England, Scotland, and Wales, and among native born of native parentage, by sex and by age period: New York state, 1910.*

Age period	MALES		FEMALES	
	Native born of native parentage	English and Scotch born	Native born of native parentage	English and Scotch born
All ages:				
Crude rate	15.9	21.8	13.9	20.6
Ages 10 and over:				
Crude rate	13.8	22.6	12.4	20.8
Standardized rate	13.8	16.6	12.4	15.8
Under 10	23.5	7.0	19.6	6.0
10-14	2.5	3.7	2.6	3.3
15-19	3.6	5.8	3.2	5.8
20-24	5.0	4.3	4.7	3.8
25-44	6.9	8.7	5.7	7.6
45-64	18.8	24.6	14.3	21.0
65-84	77.3	86.6	68.2	79.9
85 and over	268.9	261.9	242.3	279.6

condition continues throughout the period "45-64." In the last period the rates are very much the same. In the age period "25-44" the British females likewise show a higher mortality than do the native born of native parentage, and this condition continues throughout the rest of life. Considering all ages, 10 and over, the crude rate for males is 22.6 and for females 20.8. Standardized rates are respectively 15.6 and 15.8, which are considerably higher than the corresponding figures 13.8 and 12.4 for the native born of native parentage. It is difficult to understand why the mortality of the British in New York state should be so much higher than that found in their own country.

No group of causes (Table 14) stands out with such prominence as to enable us to draw any general conclusions, and, indeed, the basic figures before age 25 and after age 64 would scarcely be large enough to justify them. It may be interesting, however, to note that pneumonia is higher among British males at ages "25-84" and among females at all ages beginning with age 25, than among natives. At ages "45-64," for example, there is a mortality, from this cause, of 252.7 per 100,000 among males born in England, Scotland, and Wales, but of only 189.6 among native Americans; the corresponding figures for females are 199.7 and 130.3, respectively. Cancer is higher among British males in all age groups beginning with age 45, and among British females at ages "25-84." Thus there is a rate at ages "45-64" of 239.7 per 100,000 among males of this stock,

TABLE 14.—*Deaths of persons born in England, Scotland, and Wales and rates per 100,000 for the principal causes of death, by sex and age period: New York state, 1910.*

Sex and age period	Population	All causes		Tuberculosis of lungs		Cancer		Org. heart diseases		Pneumonia		Bright's disease	
		Deaths	Rates per 1,000	Deaths	Rates per 100,000	Deaths	Rates per 100,000	Deaths	Rates per 100,000	Deaths	Rates per 100,000	Deaths	Rates per 100,000
MALES													
All ages	101749	2217	21.8	219	215.2	148	145.5	331	325.3	207	203.4	205	201.5
Under 10	4274	30	7.0	1	23.4	. .	. . .	. .	. . .	7	163.8	. .	. . .
10-14	2712	10	3.7	1	36.9	. .	. . .	3	110.6	. .	. . .	. .	. . .
15-19	6108	35	5.8	4	128.7	2	64.4	1	32.2	1	32.2	. .	. . .
20-24	6901	34	4.3	15	217.5	1	14.3	. .	. . .	1	14.3	. .	. . .
25-44	43243	378	8.7	104	240.5	64	148.0	30	69.4	43	99.4	20	46.3
45-64	30807	759	24.6	83	269.4	74	239.7	84	272.1	78	253.2	80	259.7
65-84	9984	865	86.6	21	210.3	59	590.9	190	1903.0	70	701.1	86	861.4
85 and over	485	127	261.9	. .	. . .	6	1237.1	23	4742.3	7	1443.3	10	2061.9
Unknown	85	. .	. .	. .	. . .	. .	. . .	. .	. . .	. .	. . .	. .	. . .
FEMALES													
All ages	91610	1886	20.6	118	128.8	205	223.8	313	341.7	188	205.2	176	192.1
Under 10	4307	26	6.0	1	23.2	1	23.2	1	23.2	2	46.4	. .	. . .
10-14	2727	9	3.3	. .	. . .	. .	. . .	4	146.7	. .	. . .	. .	. . .
15-19	6126	18	2.9	2	64.0	. .	. . .	1	32.0	3	96.0	. .	. . .
20-24	6981	53	7.6	9	171.5	. .	. . .	4	90.7	2	30.4	1	15.2
25-44	38004	388	10.2	68	252.4	22	57.8	29	99.6	21	65.1	19	49.9
45-64	26045	547	21.0	24	92.1	94	360.9	77	295.6	52	199.7	63	241.9
65-84	10048	803	79.9	14	139.3	86	855.9	180	1791.4	83	826.0	83	826.0
85 and over	1078	170	279.6	1	164.5	2	328.9	26	4276.3	25	4111.8	10	1644.7
Unknown	70	. .	. . .	. .	. . .	. .	. . .	. .	. . .	. .	. . .	. .	. . .

in contrast to 150.0 among native males; the mortality of British females from this cause is 360.9, while that of natives is 287.4. Heart disease is higher among males at ages "25-44" and "65-84," and among females at all ages beginning with age 45. Bright's disease is likewise higher among females at ages "45-84."

Summary

The lowest mortality rate in the population of New York state is found among the native born of native parentage. This is true for both sexes and for virtually every age period, but is marked at the adult ages. The foreign born and their native born offspring agree much more closely with each other than they do with the native born of native parentage. There are marked variations, to be sure, in the several age periods and in the two sexes, but the first generation Americans and the foreign stock from which they have arisen show unmistakably their close connection. The death rates of the component races among the foreign born present very marked variations. Remarkably low rates are found among the Russians, and this is largely accounted for by the presence of a large proportion of Jews among them. The Italians follow very closely with exceptionally low rates of mortality, although Italian females at certain age periods show rather unfavorable conditions, especially from the respiratory diseases. The remaining races may be arranged roughly in the following increasing order of mortality: Austro-Hungarians, British, Germans, and Irish. Of these four nationalities, the first appears to be the only one whose mortality in New York state is more favorable than that prevailing in the native country. The very high rate of mortality among the Germans and especially among the Irish is one of the surprising facts of this study. Apparently it is the very high incidence of pulmonary tuberculosis that is largely responsible for this condition, although the degenerative diseases also present rates much in excess of those for the native born of native parentage or for the same nationalities abroad. These facts are clearly indicative of unfavorable conditions of life and work among the peoples in question, and point definitely to the need of special public health work by the state and various city departments of health for these groups of the population. A large number of unnecessary deaths would readily be prevented by a concerted effort carried over a period of years.

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